

IN THE CLAIMS

1. (Currently Amended) A method for dynamic font subsetting, the method comprising including:

an intermediate network device receiving, over a first network, a first request for requested electronic content ~~on an intermediate network device~~ from an electronic device for electronic content, the electronic content including a plurality of characters in one or more desired languages;

the intermediate network device obtaining the requested electronic content ~~on the intermediate network device~~ from a second computer network, the requested electronic content including a plurality of characters in one or more desired languages;

[[on]] the intermediate network device[[,]] scanning the requested electronic content to identify one or more sets of glyphs in the requested electronic content used for the plurality of characters in the one or more desired languages;

creating one or more glyph sub-sets for the one or more identified sets of glyphs, wherein the one or more glyph sub-sets include ~~only~~ the sets of glyphs identified in the requested electronic content;

[[on]] the intermediate network device, responsive to the scanning of the requested electronic content and the creating of the one or more glyph ~~subsets~~ sub-sets, inserting one or more directives in the requested electronic content to identify the one or more glyph sub-sets, thereby creating modified electronic content, wherein a directive from the one or more directives identifies a set of glyphs from the one or more sets of glyphs identified in the requested electronic content and an encoding scheme used to encode the set of glyphs; and

the intermediate network device sending the modified electronic content to the electronic device over the first network.

2. (Currently Amended) A computer readable medium having stored therein instructions for causing a central processing unit to execute ~~for executing~~ the method of claim 1.

3. (Currently Amended) The method of claim 1 wherein ~~the~~ receiving of the first request comprises: includes

receiving a request for electronic content written in a mark-up language selected from a group of languages that includes ~~including~~ standard generalized markup language, hyper text markup language, compact hyper text markup language, extensible markup language, handheld device markup language, voice extensible markup language, ~~[[or]]~~ and wireless markup language.

4. (Currently Amended) The method of claim 1 wherein the creating of the one or more glyph sub-sets comprises includes creating one or more glyph sub-sets for glyphs selected from a group of glyphs comprising Chinese glyphs, Japanese glyphs, Korean glyphs, Vietnamese glyphs, Hebrew glyphs, [[or]] and Arabic glyphs.

5. (Currently Amended) The method of claim 1 wherein the second computer network includes a network selected from a group of networks comprising the Internet, an intranet, and ~~[[or]]~~ a local area network.

6. (Currently Amended) The method of claim 1 wherein the electronic device includes a device selected from a group of devices comprising a personal computer, a wireless telephone, a personal digital assistant, a hand-held computer, a set-top box, ~~[[or]]~~ and a network appliance.

7. (Currently Amended) The method of claim 1 wherein ~~the~~ inserting of the one or more directives in the requested electronic content comprises: includes

inserting one or more directives as hyper text markup language meta tags into a hyper text markup language header associated with the requested electronic content.

8. (Currently Amended) A method for dynamic font subsetting, the method comprising including:

[[on]] an intermediate network device[[,]] identifying a glyph set in a requested electronic content obtained by the intermediate network device in response to a first request received over a first network from an electronic device, wherein the intermediate network device obtained the requested electronic content over a second network in response to the first request;

the intermediate network device identifying a glyph sub-set from the glyph set, the glyph sub-set including only glyphs identified in the requested electronic content;

the intermediate network device inserting one or more directives into the requested electronic content to create modified electronic content, the one or more directives identifying the glyph set and an encoding scheme used to encode the glyph set;

the intermediate network device receiving a second request on the intermediate network device from [[an]] the electronic device for the glyph sub-set, the request being generated by the electronic device as a result of the one or more directives;

the intermediate network device obtaining the glyph sub-set; and

the intermediate network device sending the glyph sub-set to the electronic device over the first network to allow the electronic device to display glyphs in the modified electronic content.

9. (Currently Amended) A computer readable medium having stored therein instructions for causing a central processing unit to execute ~~for executing~~ the method of claim 8.

10. (Previously Presented) The method of claim 8 wherein the obtaining of the glyph subset is from a database associated with the intermediate network device.

11. (Currently Amended) The method of claim 8 wherein the obtaining of the glyph subset comprises: ~~includes~~

consulting a database associated with the intermediate network device to determine if the glyph sub-set already exists on the electronic device; and

creating the glyph sub-set if the glyph sub-set does not already exist on the electronic device.

12. (Currently Amended) The method of claim 8 wherein the obtaining of the one or more glyph subsets comprises: ~~includes~~

creating a database entry for the electronic device in a database associated with the intermediate network device, wherein the database entry includes an identifier for the electronic device and an identifier for the glyph sub-set sent to the electronic device by the intermediate network device.

13. (Currently Amended) The method of claim 8 wherein the receiving of the request comprises: ~~includes~~

receiving one or more requests for modified electronic content including one or more directives written in a mark-up language selected from a group of languages including standard generalized markup language, hyper text markup language, compact hyper text markup language, extensible markup language, handheld device markup language, voice extensible markup language, [[or]] and wireless markup language.

14. (Currently Amended) The method of claim 8 wherein the obtaining of the glyph sub-set comprises: ~~includes~~

obtaining one or more glyph sub-sets for glyphs selected from a group of glyphs comprising Chinese glyphs, Japanese glyphs, Korean glyphs, Vietnamese glyphs, Hebrew glyphs, [[or]] and Arabic glyphs.

15. (Currently Amended) A method for dynamic font subsetting, the method comprising
including:

an electronic device sending a first request for electronic content ~~from an electronic~~
~~device~~ to an intermediate network device ~~for electronic content on~~ over a first computer network;

responsive to the sending of the first request for the electronic content, the electronic
device receiving modified electronic content from the intermediate network device over the first
network ~~on the electronic device~~, wherein the modified electronic content is created responsive
to the first request and includes the electronic content obtained by the intermediate network
device over a second network, and one or more directives determined by the intermediate
network device, wherein a directive identifies a glyph sub-set including a set of glyphs identified
in the modified electronic content and an encoding scheme used to encode the set of glyphs;

the electronic device processing the modified electronic content, thereby identifying the
one or more directives;

the electronic device sending at least one second request ~~a plurality of second requests~~ to
the intermediate network device based on the one or more identified directives to request one or
more glyph sub-sets to allow the electronic device to display the modified electronic content; and

the electronic device receiving one or more glyph sub-sets from the intermediate network
device in response to the at least one second request; and

the electronic device displaying the modified electronic content using the one or more
glyph sub-sets.

16. (Original) A computer readable medium having stored therein instructions for causing a
central processing unit to execute the method of claim 15.

17. (Currently Amended) The method of claim 15 wherein the electronic device includes a
device selected from a group of devices comprising a personal computer computers, a wireless
telephone telephones, a personal digital assistant assistants, a hand-held computer computers, a
set-top box, and a boxes or network appliance appliances.

18. (Currently Amended) The method of claim 15 wherein ~~the step of~~ receiving modified electronic content comprises: ~~includes~~

receiving modified electronic content with a plurality of font tags written in a mark-up language selected from a group of languages including standard generalized markup language, hyper text markup language, compact hyper text markup language, extensible markup language, handheld device markup language, voice extensible markup language, ~~[[or]]~~ and wireless markup language.

19. (Currently Amended) The method of claim 15 wherein ~~the step of~~ receiving one or more glyph sub-sets from the intermediate network device comprises: ~~includes~~

receiving one or more glyph sub-sets for glyphs selected from a group of glyphs comprising Chinese glyphs, Japanese glyphs, Korean glyphs, Vietnamese glyphs, Hebrew glyphs, [[or]] and Arabic glyphs.

20. (Currently Amended) The method of claim 15 wherein ~~the step of~~ processing the modified electronic content~~[[,]]~~ comprises: ~~includes~~

identifying one or more directives as hyper text markup language meta tags into a hyper text markup language header associated with the modified electronic content.

21. (Currently Amended) The method of claim 15 wherein the electronic device includes a device selected from a group of devices comprising a personal computer, wireless telephone, personal digital assistant, hand-held computer, set-top box, [[or]] and network appliance.

22. (Currently Amended) A method for dynamic font sub setting, the method comprising including:

an electronic device reading modified electronic content from local storage on ~~[[an]]~~ the electronic device, wherein the modified electronic content includes requested electronic content and one or more directives, wherein a directive from the one or more directives identifies a glyph sub-set including a set of glyphs identified in the requested electronic content and an encoding scheme used to encode the set of glyphs;

the electronic device processing the modified electronic content ~~on the electronic device~~, thereby identifying the one or more directives, the directives being inserted in the requested electronic content to create the modified electronic content;

the electronic device determining from the one or more directives whether a desired glyph sub-set can be obtained from local storage on the electronic device, and if not,

sending one or more requests over a network to an intermediate network device to obtain glyph sub-sets that can not be obtained from local storage on the electronic device;

receiving, from the intermediate network device over the network, the glyph sub-sets that can not be obtained from local storage from the intermediate network device on the electronic device; and

displaying the modified electronic content on the electronic device using the glyph sub-sets obtained from the intermediate network device.

23. (Original) A computer readable medium having stored therein instructions for causing a central processing unit to execute the method of claim 22.

24. (Currently Amended) The method of claim 22 wherein the one or more glyph sub-sets include glyphs selected from a group of glyphs comprising Chinese glyphs, Japanese glyphs, Korean glyphs, Vietnamese glyphs, Hebrew glyphs, [[or]] and Arabic glyphs.

25. (Currently Amended) The method of claim 22 wherein ~~the step of~~ processing the electronic content~~[[,]]~~ comprises: ~~includes~~

identifying one or more directives as hyper text markup language meta tags into a hyper text markup language header associated with the modified electronic content.

26. (Currently Amended) The method of claim 22 wherein the electronic device includes a device selected from a group of devices comprising a personal computer, wireless telephone, personal digital assistant, hand-held computer, set-top box, ~~[[or]]~~ and network appliance.

27. (Previously Presented) The method of claim 22 further comprising:

determining from the one or more directives in the modified electronic content whether a desired glyph sub-set can be obtained from local storage on the electronic device, and if so,

displaying the modified electronic content on the electronic device using the one or more glyph sub-sets obtained from local storage.

28. (Currently Amended) A dynamic font subsetting system, comprising including:

~~a plurality of directives for identifying a glyph sub-set including a set of glyphs identified in electronic content and an encoding scheme used to encode the set of glyphs, wherein the set of glyphs are used to display a plurality of characters in one or more desired languages for the electronic content;~~

modified electronic content including requested electronic content as obtained by an intermediate network device over a first network and sent to an electronic device over a second network in response ~~created responsive~~ to a first request from the electronic device for the requested electronic content, and further including one or more directives for identifying one or more glyph sub-sets, the one or more glyph sub-sets including sets of glyphs identified in the requested electronic content, and encoding schemes used to encode the sets of glyphs, wherein the sets of glyphs are used to represent a plurality of characters in one or more desired languages included within the requested electronic content; and

~~[[an]]~~ the electronic device for to request the requested electronic content and to receive

and display ~~displaying~~ the modified electronic content, wherein the electronic device does not
have stored information for ~~has resources insufficient to store all~~ glyphs for all characters in ~~[[a]]~~
the one or more desired language ~~languages~~.

29. (Currently Amended) The dynamic font subsetting system of claim 28 further comprising the
~~including an~~ intermediate network device ~~adapted to~~

receive ~~[[a]]~~ the first request ~~on the intermediate network device~~ from ~~[[an]]~~ the
electronic device for the requested electronic content, ~~the electronic content including a plurality~~
~~characters in one or more desired languages,~~

obtain the requested electronic content ~~on the intermediate network device~~ from a
~~computer~~ the first network, the requested electronic content including the plurality of characters
in the one or more desired languages,

scan the requested electronic content to identify ~~one or more~~ the sets of glyphs in the
requested electronic content used for the plurality of characters in the one or more desired
languages,

create the one or more glyph sub-sets for the ~~one or more identified~~ sets of glyphs,
wherein the one or more glyph sub-sets include ~~only~~ the sets of glyphs identified in the requested
electronic content,

insert the one or more directives in the requested electronic content to identify the one or
more glyph sub-sets ~~needed to display the plurality of characters in the one or more desired~~
~~languages in the requested electronic content,~~ thereby creating the modified electronic content,
wherein a directive identifies a glyph sub-set including a set of glyphs identified in the requested
electronic content and an encoding scheme used to encode the set of glyphs,

send the modified electronic content to the electronic device over the second network,
and

~~obtain for obtaining one or more glyph sub-sets for an electronic device and send the one~~
~~or more glyph sub-sets to the electronic device to allow the electronic device to display glyphs in~~
~~the modified electronic content.~~

30. (Currently Amended) The dynamic font subsetting system of claim 29 further comprising including:

a database associated with the intermediate network device ~~for storing~~ to store the one or more glyph sub-sets including sets of glyphs obtained or created by the intermediate network device needed to display the modified electronic content on the electronic device and for storing to store database entries for a plurality of electronic devices, wherein ~~the database entries include~~ a database entry includes an identifier for the electronic device and a list of one or more glyph sub-sets obtained or created by the intermediate network device for the electronic device.

31. (New) A method performed by an intermediate network device, the method comprising:

receiving, over a first network, a first request for requested electronic content from a portable electronic device;

obtaining the requested electronic content from a second network, wherein the requested electronic content includes a plurality of characters in one or more desired languages;

scanning the requested electronic content to identify one or more sets of glyphs in the requested electronic content used for the plurality of characters;

creating one or more glyph sub-sets for the one or more identified sets of glyphs, wherein the one or more glyph sub-sets include glyphs identified in the requested electronic content;

inserting one or more directives in the requested electronic content to identify the one or more glyph sub-sets, thereby creating modified electronic content; and

sending the modified electronic content to the electronic device over the first network.

32. (New) The method of claim 31, further comprising:

receiving, over the first network and in response to sending the modified electronic content, at least one second request from the electronic device for the one or more glyph sub-sets; and

sending the one or more glyph sub-sets to the electronic device over the first network.

33. (New) The method of claim 31, wherein the first network and the second network are a same network.

34. (New) A method performed by an electronic device, the method comprising:

- sending a first request for electronic content to an intermediate network device over a first network;

- responsive to the sending of the first request, receiving modified electronic content from the intermediate network device over the first network, wherein the modified electronic content includes the electronic content obtained by the intermediate network device over a second network, and one or more directives, which identify one or more glyph sub-sets corresponding to a set of glyphs identified by the intermediate network device from the electronic content;

- sending at least one second request to the intermediate network device, based on the one or more directives, to request the one or more glyph sub-sets;

- receiving the one or more glyph sub-sets from the intermediate network device in response to the at least one second request; and

- displaying the modified electronic content using the one or more glyph sub-sets.

35. (New) The method of claim 34, wherein the first network and the second network are a same network.